



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,856	09/17/2003	Robert Choi	KRN 318C	5777
23581	7590	05/03/2007	EXAMINER	
KOLISCH HARTWELL, P.C. 200 PACIFIC BUILDING 520 SW YAMHILL STREET PORTLAND, OR 97204			CARTAGENA, MELVIN A	
		ART UNIT		PAPER NUMBER
		3754		
		MAIL DATE	DELIVERY MODE	
		05/03/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/666,856	CHOI ET AL.	
	Examiner	Art Unit	
	Melvin A. Cartagena	3754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 01 January 1707.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-10, 13-22 and 34-48 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-10, 13-22 and 34-48 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application
	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-10, 13, 21, 22, 35-40, 47 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,712,594 to Schneider in view of US 6,239,210 to Kim et al.

Schneider shows a liquid storage and delivery system as seen in Figs. 1, 10, 11, 12 and 13 having a flexible fluid reservoir 82 adapted to receive a volume of drinking fluid, a fill port 83, exit ports 84, an elongated downstream assembly 65 in fluid communication with an exit port 71, a fitting 68 adapted to interconnect with a gas mask 10, connectors 64, 65 and 66, an elongated downstream assembly 19 in fluid communication with an exit port 11, a mouth piece, see column 2, lines 37-42. Schneider is silent about the flexible fluid reservoir made of a clear material containing ethylene vinyl alcohol layer with at least one waterproof layer on each side. Kim shows a clear reservoir made with a clear gas resistant layer containing ethylene vinyl alcohol (HVOH) layered with a waterproof heat-sealable polyester layer on each side, the layers are separated apart by a tie laying layers 14 and 18. It would have been obvious to a person with ordinary skill in the art at the time the invention was made to make the reservoir of Schneider using a multilaminate material as taught by Kim to give the ethylene vinyl alcohol containing layer additional structural strength, see column 1, lines 40-47.

With respect to the product by process limitation in claims 3 and 10, see MPEP 2113: “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

With respect to the thickness and the resistance to the chemical exposure of the layers as claimed in claims 4-9 and 36-38, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to make the layers of a suitable thickness to provide adequate protection according to the level of chemical in the hazardous environment where the device is to be used and inherently a thicker layer would tend to resist longer exposure to the hazardous environment, in addition it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art, as per MPEP 2144.05.

3. Claims 14-20 and 41-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,712,594 to Schneider as modify by US 6,239,210 to Kim et al. as applied to claims 1 and 35 above, and further in view of US 5,374,088 to Moretti et al.

The Schneider-Kim combination shows all claimed features as discussed above except for the details of the quick connector having a resilient ring engaged with a female coupling. Moretti shows a quick-release connector as seen in Figs. 5, 8 and 9 having a male and female members 3 and 12 respectively, a resilient lock ring 2 inserted into cavity 11 of the female

member that are spaced apart, the resilient ring locks the male member in place with supports 13, the female member also includes walls 21 that act as guards to prevent accidental release of the coupling, see column 4, lines 22-27. It would have been obvious to a person with ordinary skill in the art at the time the invention was made to use the quick-connector of Moretti in the device of the Schneider-Kim combination to reduce the time it takes to engage the protective gear with the proper attachments in an emergency and reduce the risk of exposing the user to hazardous environments.

4. Claims 34 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,712,594 to Schneider as modify by US 6,239,210 to Kim et al. as applied to claims 1 and 35 above, and further in view of US 6,279,772 to Bowman.

The Schneider-Kim combination shows all claimed features as discussed above but is silent about the mouthpiece being resilient and self-sealing. Bowman shows a resilient bite valve as seen in Fig. 1. It would have been obvious to a person with ordinary skill in the art at the time the invention was made to use the bite-actuated valve of Bowman in the device of the Schneider-Kim combination to create a liquid dispensing unit that maintains a fluid column in a delivery tube from a fluid reservoir to the fluid dispensing unit under negative and positive static state of pressure on the liquid dispensing unit as taught by Bowman.

Response to Arguments

5. Applicant's arguments filed January 17, 2007 have been fully considered but they are not persuasive. With respect to the argument that Kim fails to disclose a material with multilayers spaced apart that include ethylene vinyl alcohol. Kim shows a multilayer material made with layers 16 and 20 separated apart by adhesive layers 14 and 18, see Figs. 2 and 3. The materials of

Art Unit: 3754

the device of Kim contain ethylene vinyl alcohol (EVOH) that has excellent gas barrier properties, see column 2, lines 28-31. With respect to the arguments about the type of environment the device is intended to be used, the primary reference of Schneider is directed to chemical warfare environments containing toxic gases where clothing and masks are effective to shield or filter the particular chemical agent involved, see column 1, lines 18-49.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin A. Cartagena whose telephone number is (571) 272-4924. The examiner can normally be reached on T-F (7:30AM to 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin P. Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3754

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MAC 4/16/07
MAC


KEVIN SHAVER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700